

## *Climate Adaptation and Resilient Communities: Policy, Research and Practice*

Canadian Queen Elizabeth II Diamond Jubilee Scholarship Program 2021-2024  
McGill School of Population and Global Health & University of the West Indies

### Priority Research Topics for 2022

- Green Campus & Climate Action
- Eco-Friendly and Sustainable Living: Policy and Practice
- Disaster Risk Management and Resilience
- Climate Change Effects on Coastal Communities
- Health and Psychosocial Practices for Building Resilience
- Food Security
- Migration and Displacement
- Methods for Engaging Communities in Climate Research and Action

#### Green campus & Climate Action

In this time of pivotal growth, Higher Educations Institutions (HEIs) must be a space for creative thinking, a source of motivation, and a starting point for creating a sense of awareness and responsibility, even virtually. Students should be offered an educational programme, physical place, and organizational culture in which environmentally conscious global citizens can be nurtured. QES Scholars would explore the process of creating an environment where teachers and faculty can cultivate a positive and progressive school culture, i.e., sustainable HEIs. This would include designing methods for bringing together environmental education and community engagement; investigating ways to increase participation and productivity as well as improve problem-solving and critical thinking skills.

#### Eco-friendly and Sustainable Living: Policy and Practice

QES Scholars would investigate efforts being advanced at local and regional levels around sustainable living practices. They would catalogue how companies are engaged in these efforts and the dialogue/discussion through creating programmes or advocating for policy, as well as what legislation is being crafted at the state and national level for promoting an eco-friendlier environment. They would identify and analyze gaps in promoting eco-friendly and sustainable living practices. Students would explore ways and means of promoting the health of the country, promoting clean energy, and protecting natural systems.

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### Disaster Risk Management and Resilience

Environmental, natural, and health disasters and crises are becoming more frequent and of greater magnitude. These disasters hamper economic and social development and lead to losses of life, exacerbate inequalities, and derail livelihoods. When multiple disasters strike at the same time, their adverse effects may compound one another and hamper response and recovery efforts. This has spawned a consensus among the political, private sector, civil society and development partners on the need to enhance resilience to social, environmental, and health disasters through a whole of society approach. QES Scholars would explore these issues in selected communities, assess, and contribute, to the elaboration of inclusive disaster responses. Research will involve examining how disasters and responses thereto play out at the community level, the ways in which structural inequalities and human rights affect vulnerability and resilience, and the role of science, innovation and local knowledge in shaping response, recovery, and adaptation efforts. Students, through internships, will have the opportunity to become familiar with the international, regional, and national disaster risk management and resilience frameworks and plans across different fields of public policy and examine how these play out at the community level. Academics involved in this partnership will have an opportunity to study the opportunities and challenges for developing and implementing inclusive responses to disasters and the lessons that can be learned and applied across different types of disasters.

### Climate Change Effects on Coastal Communities

The target countries of the study are small island states with heavy concentrations of populations and economic assets within the two kilometers of the coastlines. The projections in sea level rise and temperatures increases the vulnerability of livelihoods, societies and the ecosystems which support them. Increasing sea levels change the shape of coastlines, contributes to coastal erosion and leads to flooding and more underground salt-water intrusion. QES Scholars would gain a deeper understanding of how climate change continues to affect coastal communities. The challenge of climate change needs to be addressed inter alia through integrated and ecosystem-based approaches and instruments, such as integrated coastal management. These are crucial in building the foundations for sustainable coastal management and development, supporting socio-economic development, biodiversity and ecosystem services.

### Health and Psychosocial Practices for Building Resilience

Climate change is adversely affecting the physical, mental, and spiritual health of populations universally through climate-induced dislocation and environmental degradation, and also over development obstacles due to damage to public health and other critical infrastructure and to livelihoods by extreme weather events. Public health has experience in coping with climate-sensitive health outcomes. The current state of population health reflects (among many other factors) the degree of success or failure of the policies and measures designed to reduce climate-related risks. As such, it is important for students to learn of the Health Best Practices for climate change adaptation, tailor-made to current and projected health impacts of climate change within the region. Scholars will also have a chance to explore the psychosocial and spiritual dimensions of wellbeing in the context of climate change and resilience building, both at the level of individuals and communities.

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### Food security

Higher temperatures, shifts in seasons and precipitation patterns can all have a significant impact on agriculture and food security. Direct impacts on agriculture can include less fertile soil, more or different crop pests and livestock diseases, changes in fish stock, and reduced yields. All of this could lead to greater food insecurity by reducing nutrition, incomes, and access to markets. Scholars would investigate practices such as low-till, conservation agriculture, crop rotations, and use of shade trees and cover crops that could improve resilience and reduce emissions. They would also examine other adaptation measures such as rainfall capture and providing seasonal weather forecasts to inform planting decisions. They would consider how emissions can also be reduced with better land use planning to reduce conversion of forested lands. The development of local food systems in urban environments is essential to building resilience to climate-related disruptions. Short food circuits and urban agriculture initiatives are amongst the urban food security interventions that may be explored by QES students.

### Migration and Displacement

Natural disasters such as earthquakes have long resulted in human displacement. As a result of climate change, droughts, floods, sudden storm patterns are becoming more common and rendering formerly inhabited parts of the world unliveable. Unable to cultivate the land or keep their homes in safe ground, families are increasingly being forced to migrate to milder, safer zones, potentially enriching the host communities as well as opening new opportunities for those who migrate and their descendants. The challenges of the migration and integration trajectories, however, cannot be understated for those who relocate as well as for the societies that host them. Policies and resources in transit and receiving countries are crucial for the protection and integration of newcomers and residents. Scholars will explore psychosocial, policy, and programmatic issues related to migration, taking into consideration the migration trajectory of individuals and families in sending, transit, and host societies.

### Methods for Engaging Communities in Climate Research and Action

The climate crisis is already exacerbating existing health inequalities. The engagement of communities in addressing climate justice and climate change and sustainability research is critical to the development and implementation of effective interventions that improve health and reduce inequalities. QES students may explore questions related to social capital and community development in urban and non-urban settings, looking at the roles of community organisations/NGOs and health authorities in supporting community development. Methods of engagement could range from grass roots consultation with communities to get at the various perspectives (e.g., children and youth, elders, girls and women) to mobilizing communities to take action particularly in relation to policy dialogue. Effective engagement can draw on action-oriented, participatory methodologies such as arts-based approaches (participatory video, visual narratives, collage, and photo voice along with media form more broadly). Scholars will be invited to use an intersectional/equity lens and to reflect and innovate on the methodological and ethical issues in community-engaged research and action.